FIG. 1

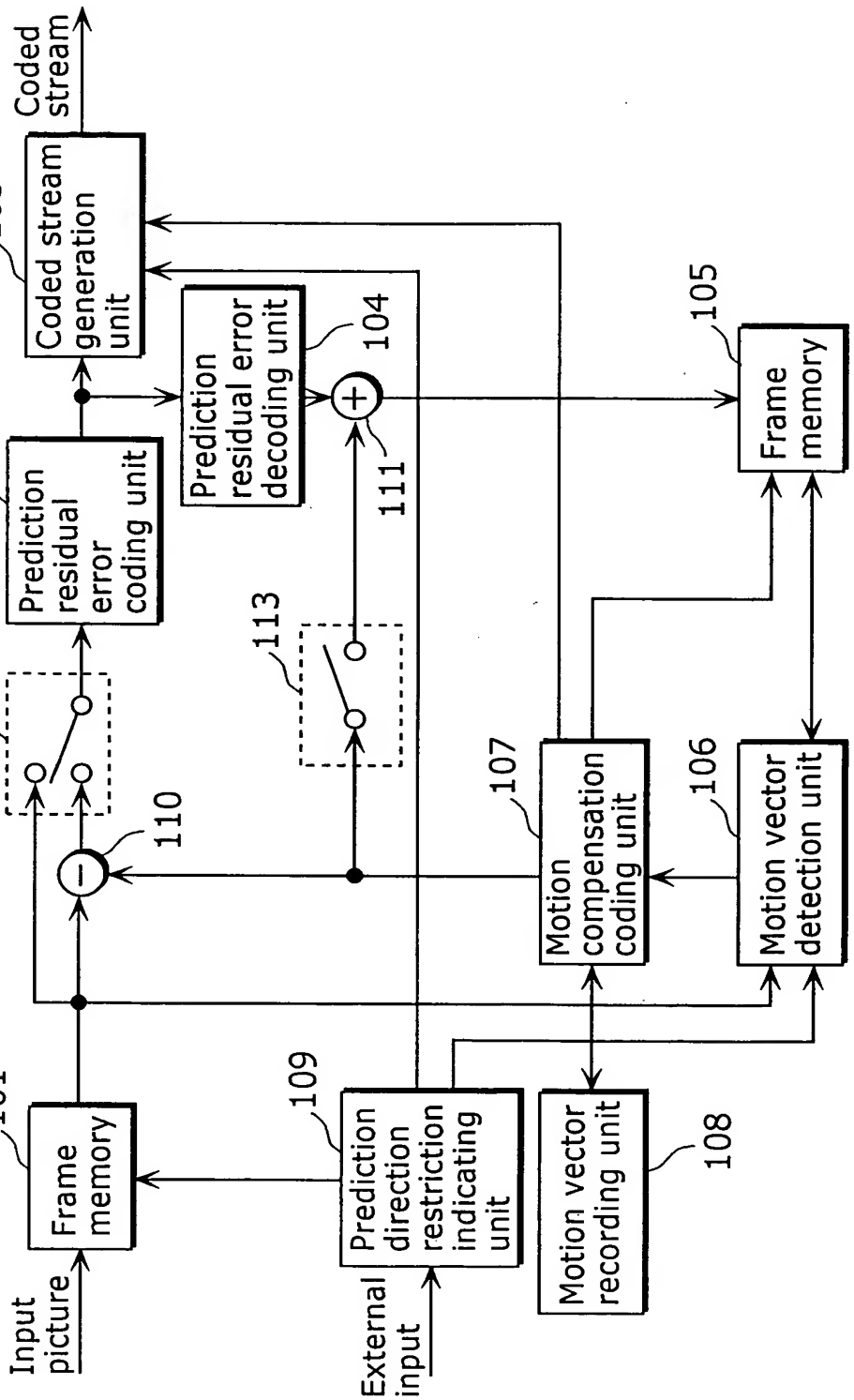

Coded stream
103
Coded stream generation unit
Prediction residual error decoding unit
104
105
Frame memory
102
Prediction residual error coding unit
111
113
112
110
107
Motion compensation coding unit
106
Motion vector detection unit
101
Frame memory
109
Prediction direction restriction indicating unit
Motion vector recording unit
108
Input picture
External input

FIG. 2

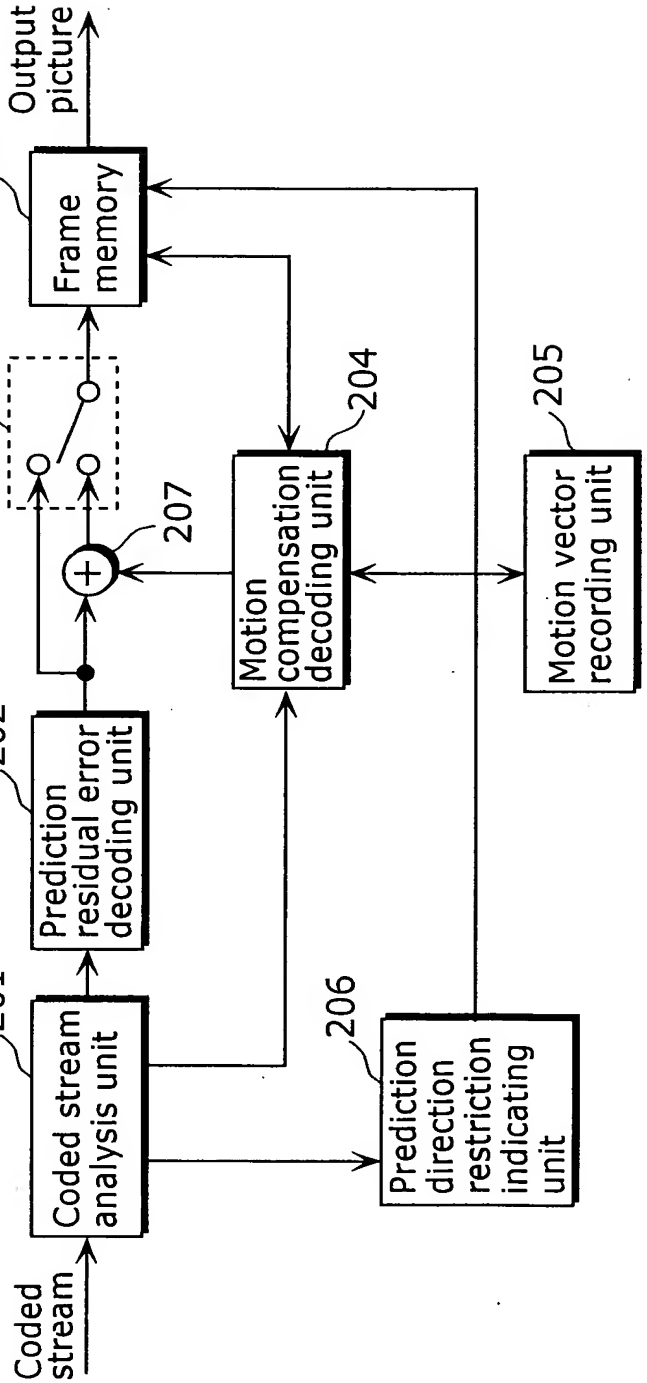

Output picture
203
Frame memory
208
204
205
207
Motion compensation decoding unit
Motion vector recording unit
202
Prediction residual error decoding unit
201
Coded stream analysis unit
206
Prediction direction restriction indicating unit
Coded stream

FIG. 3A

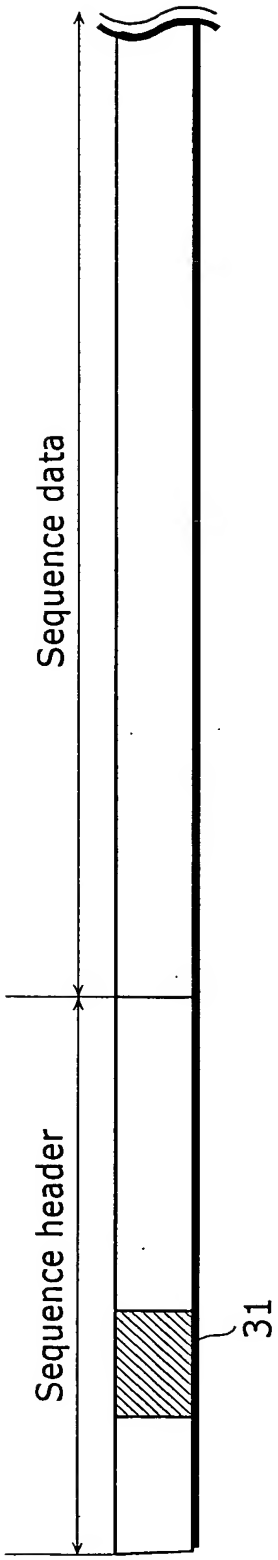

Sequence data
Sequence header
31

FIG. 3B

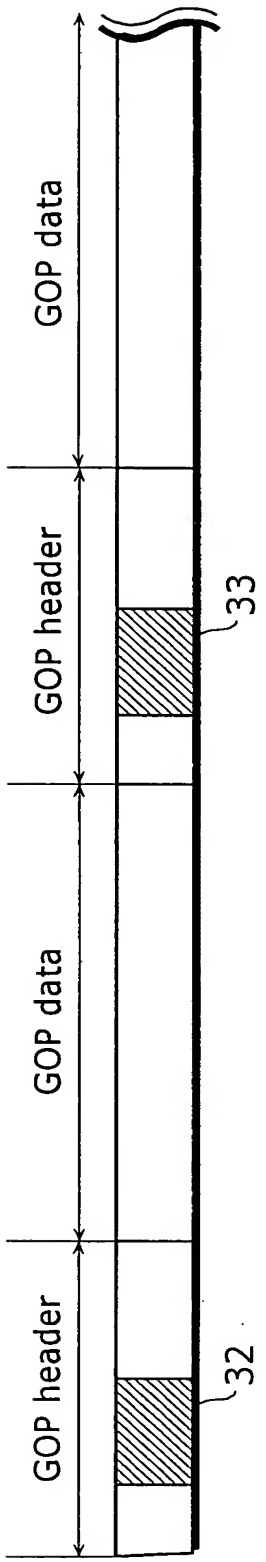

GOP data
GOP header
33
GOP data
GOP header
32

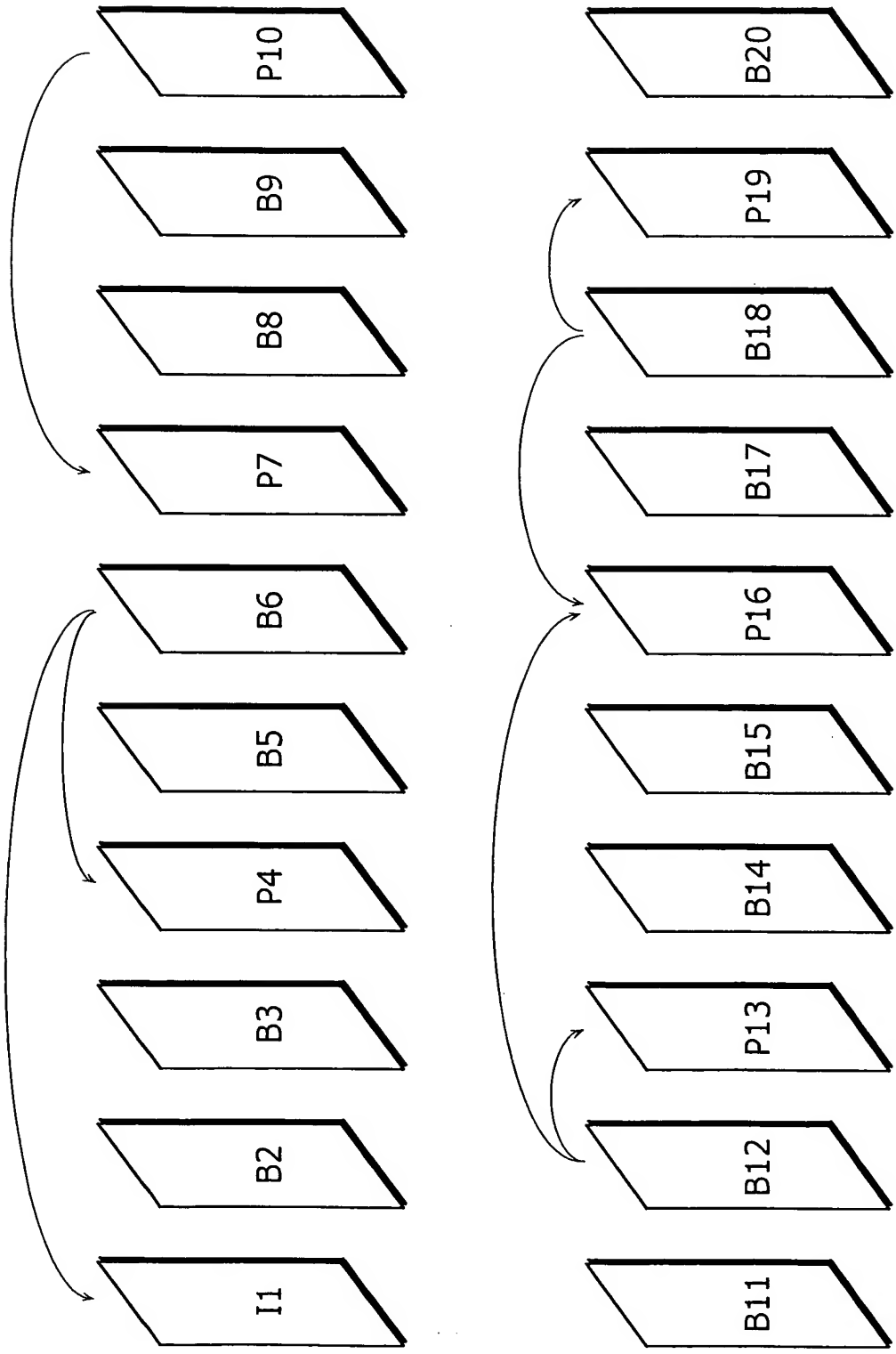
FIG. 4A

Identification number	Usable picture
0	I picture、P picture、B picture
1	I picture、P picture、Forward reference B picture

FIG. 4B

Identification number	Usable picture
0	I picture、P picture、B picture
1	I picture、P picture、Forward reference B picture
2	I picture、P picture

FIG. 5


I1
B2
B3
P4
B5
B6
P7
B8
B9
P10
B11
B12
P13
B14
B15
P16
B17
B18
P19
B20

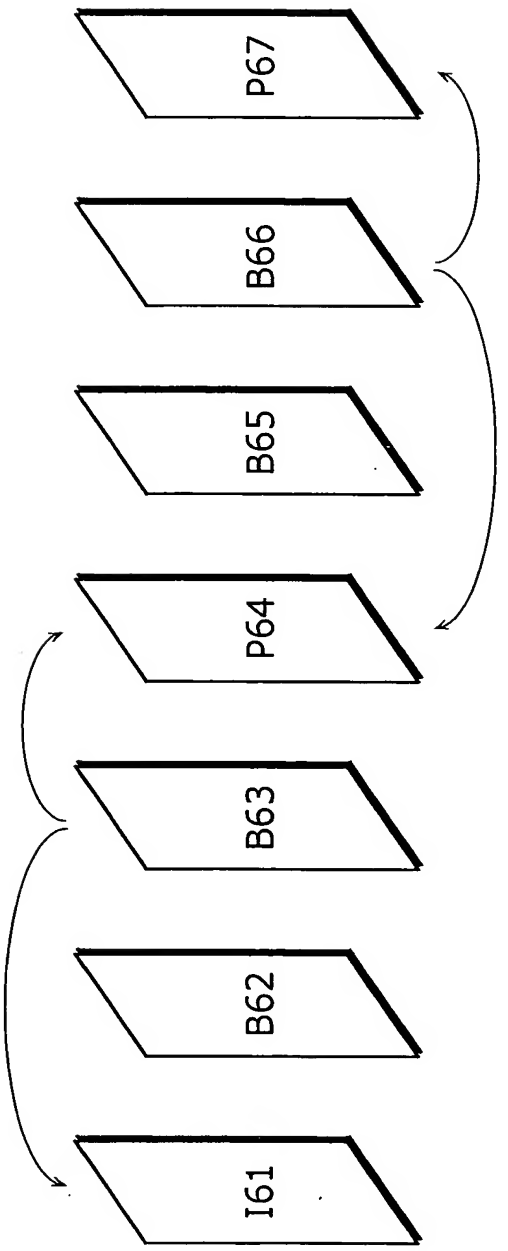


FIG. 6A

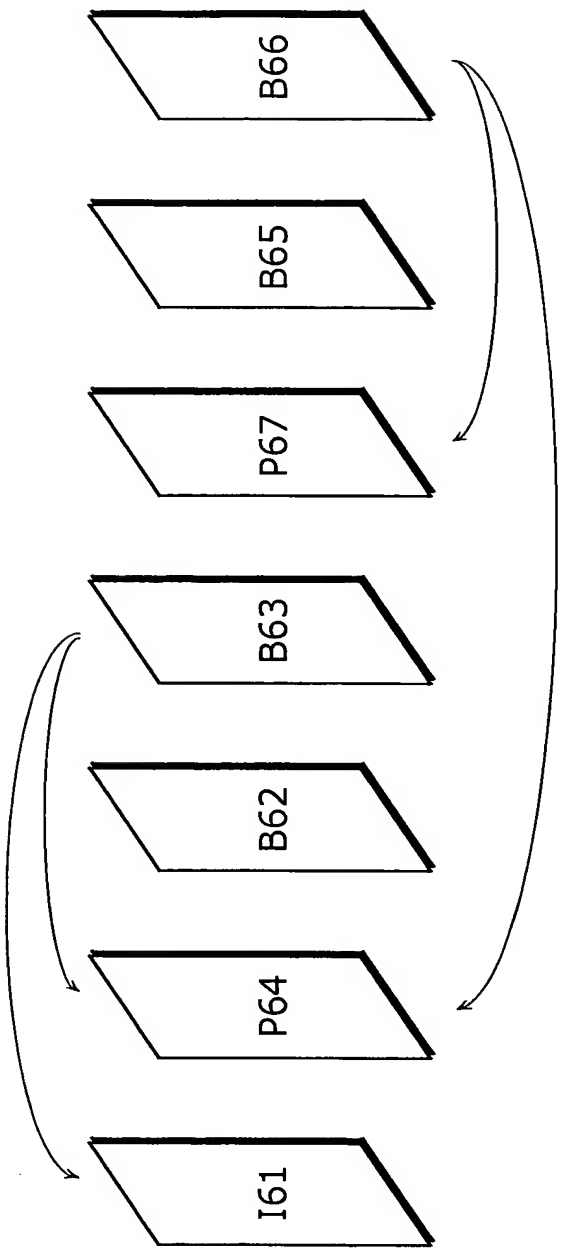


FIG. 6B

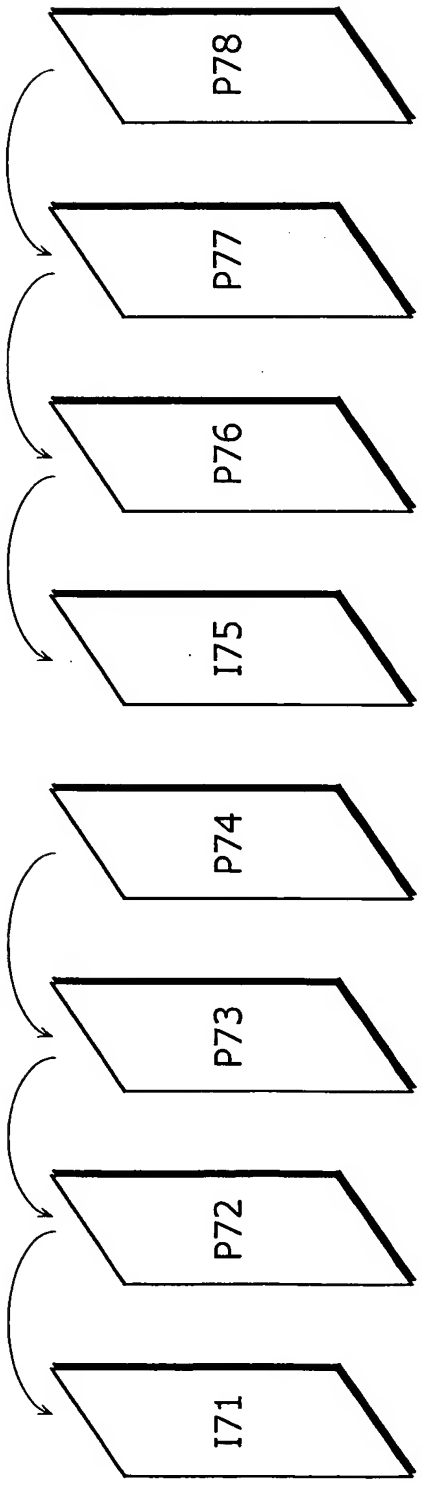


FIG. 7

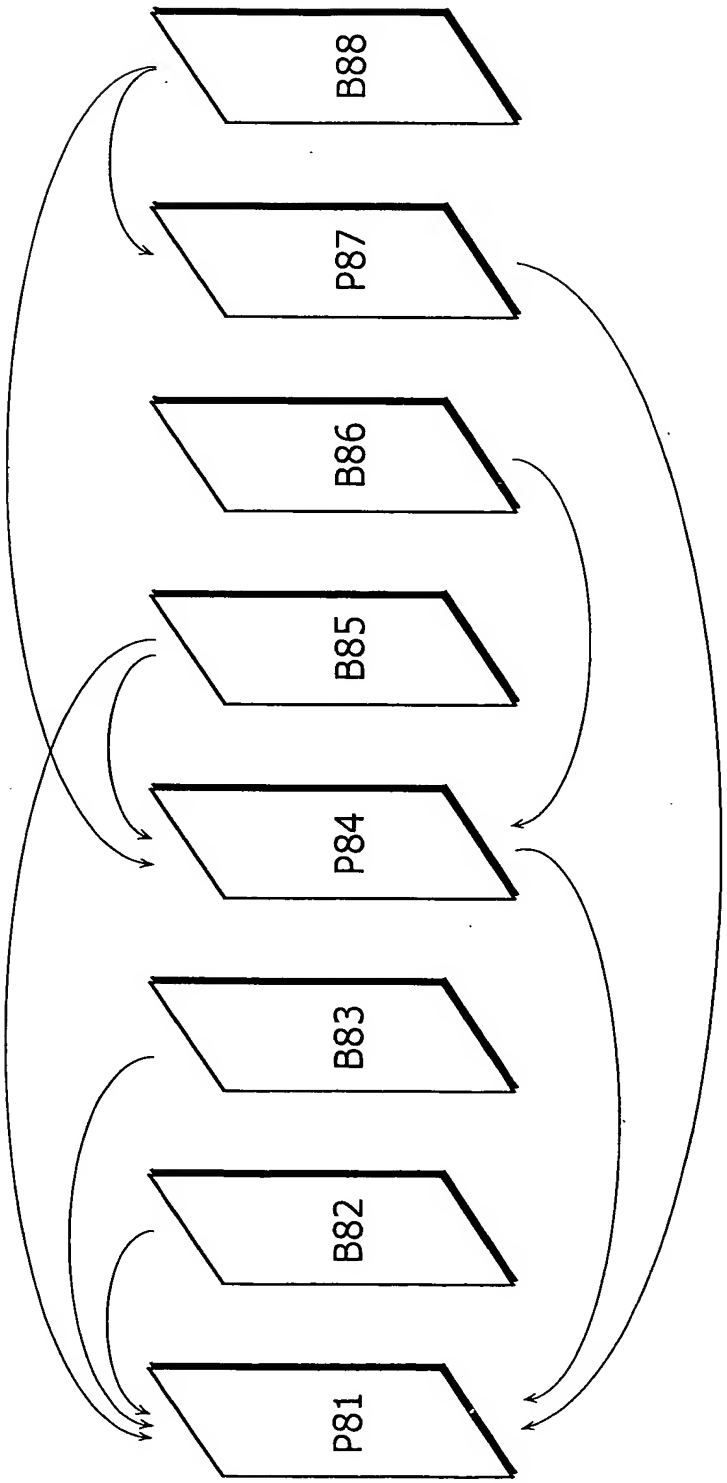


FIG. 8

FIG. 9A

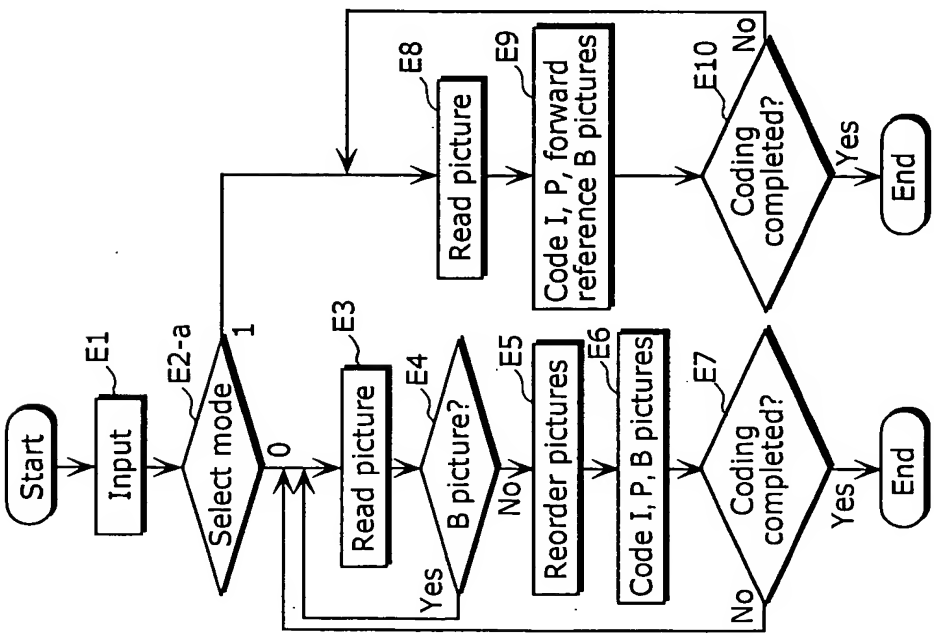

Start
Input
E1
Select mode
E2-a
0
1
Read picture
E3
B picture?
E4
Yes
No
Reorder pictures
E5
Code I, P, B pictures
E6
Coding completed?
E7
No
Yes
End
Read picture
E8
Code I, P, forward reference B pictures
E9
Coding completed?
E10
No
Yes
End

FIG. 9B

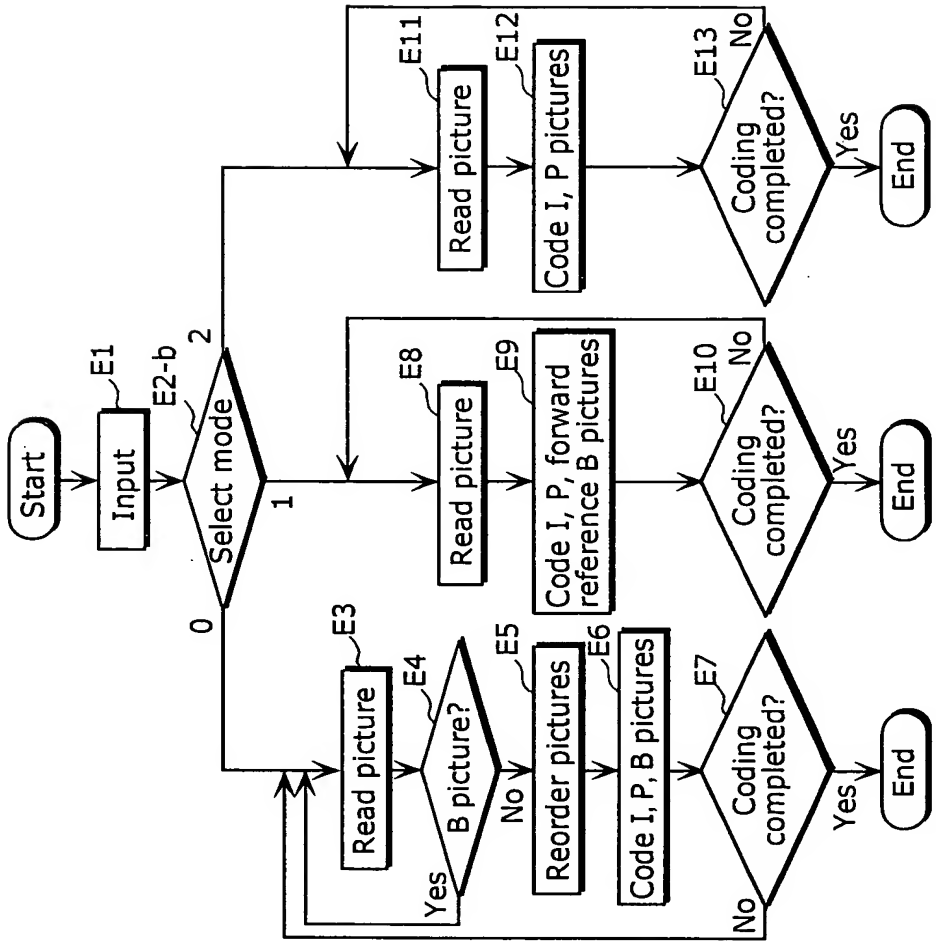

Start
Input
E1
Select mode
E2-b
0
1
2
Read picture
E3
B picture?
E4
Yes
No
Reorder pictures
E5
Code I, P, B pictures
E6
Coding completed?
E7
No
Yes
End
Read picture
E8
Code I, P, forward reference B pictures
E9
Coding completed?
E10
No
Yes
End
Read picture
E11
Code I, P pictures
E12
Coding completed?
E13
No
Yes
End

FIG. 10A

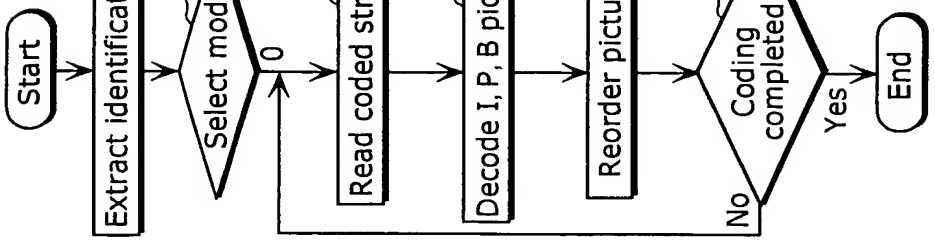


FIG. 10B

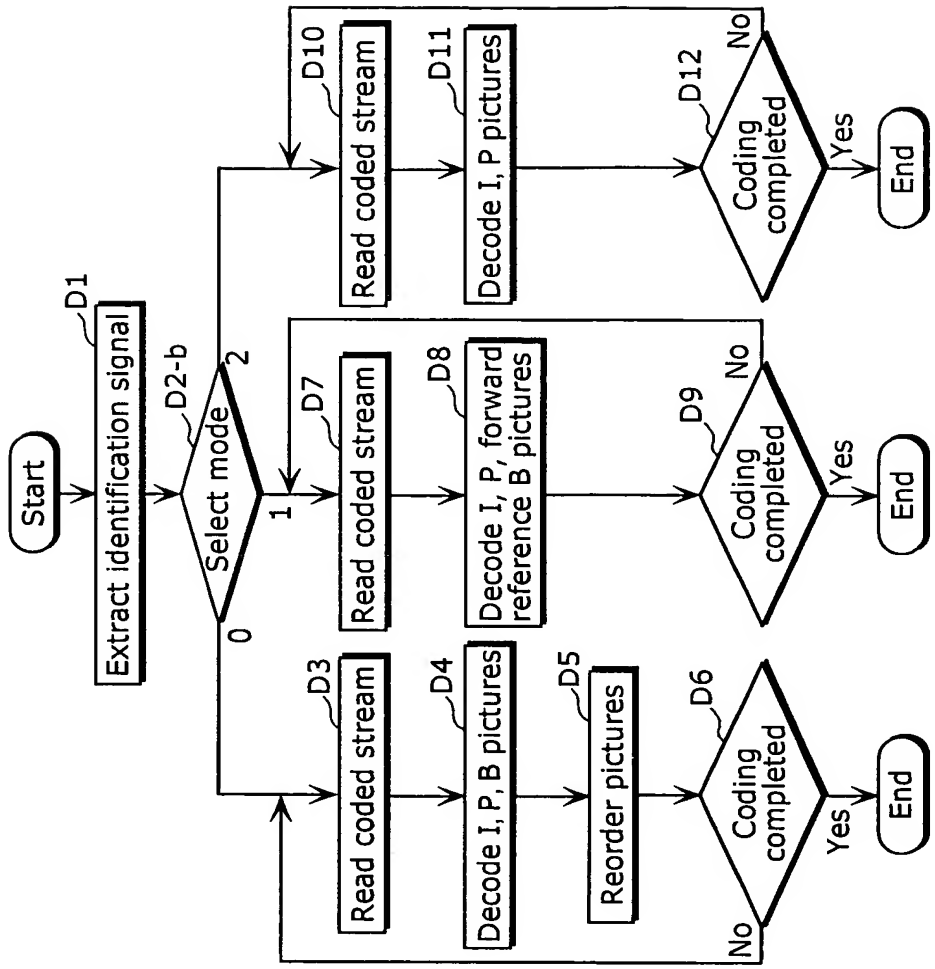


FIG. 11

	Processing amount	Coding efficiency	Delay resistance
I picture、P picture	◎	△	○
I picture、P picture、Forward reference B picture	○	○	○
I picture、P picture、B picture	△	◎	△

FIG. 12A

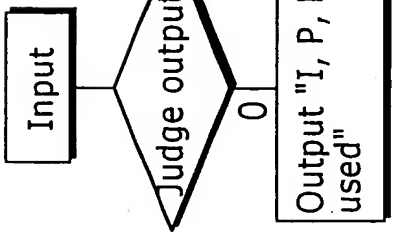


FIG. 12B

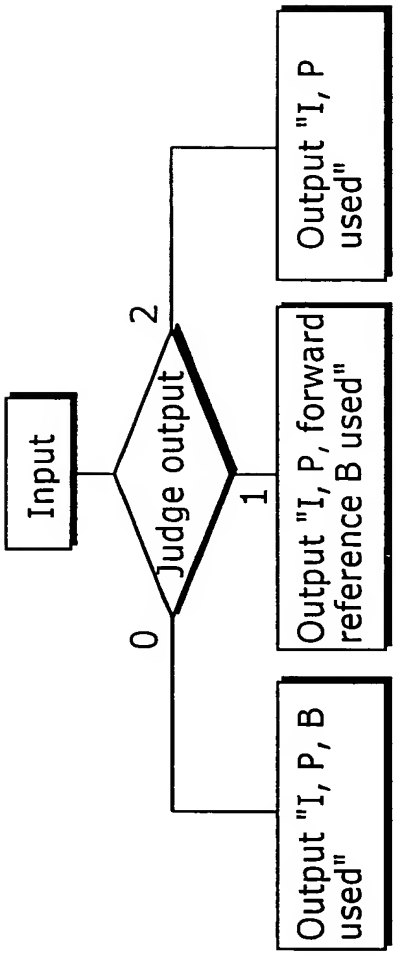


FIG. 12C

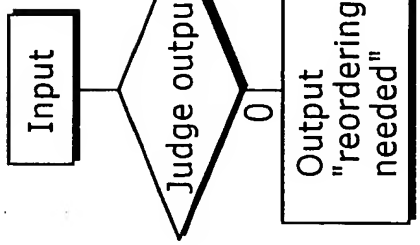


FIG. 12D

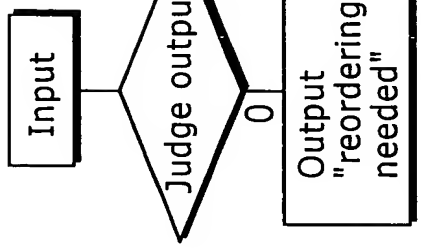


FIG. 13

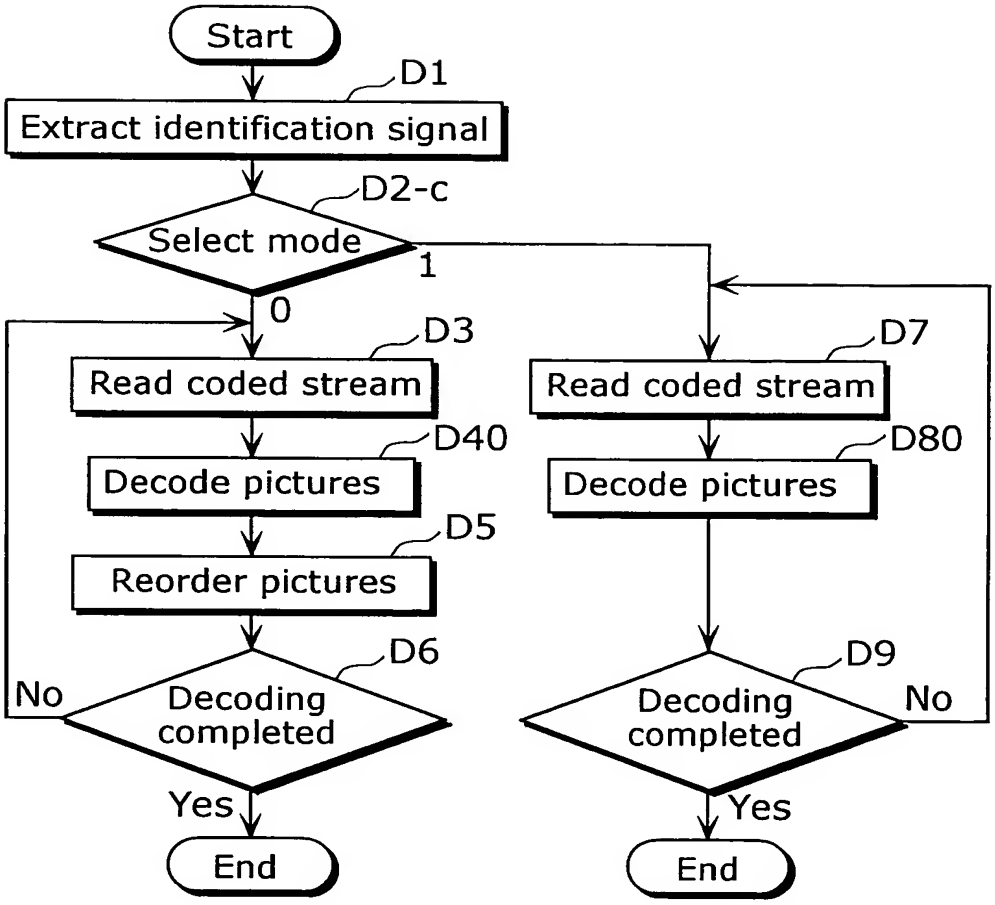

Start
D1
Extract identification signal
D2-c
Select mode
1
0
D3
Read coded stream
D40
Decode pictures
D5
Reorder pictures
D6
No
Decoding completed
Yes
End
D7
Read coded stream
D80
Decode pictures
D9
Decoding completed
No
Yes
End

FIG. 14A

Identification number	Used picture
0	I picture、P picture、B picture
1	I picture、P picture、Forward reference B picture

FIG. 14B

Identification number	Used picture
0	I picture、P picture、B picture
1	I picture、P picture、Forward reference B picture
2	I picture、P picture

FIG. 14C

Identification number	Reordering necessity
0	needed
1	not needed

FIG. 15A

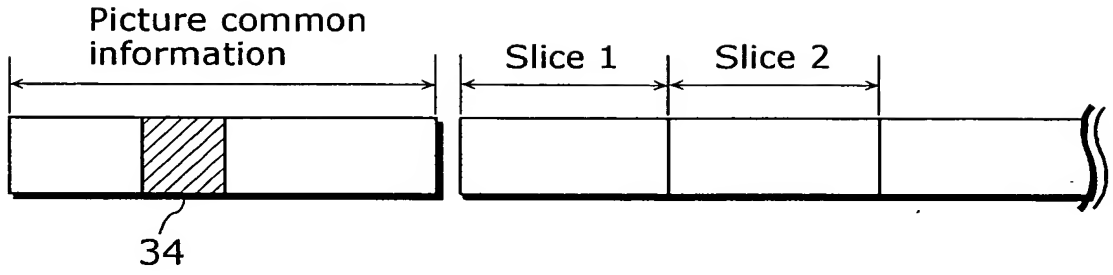


FIG. 15B

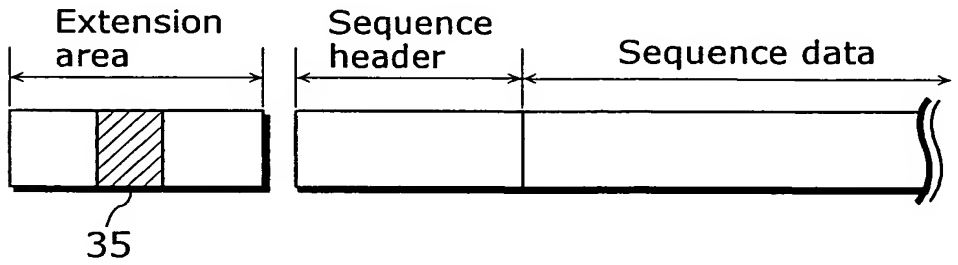


Fig. 16A

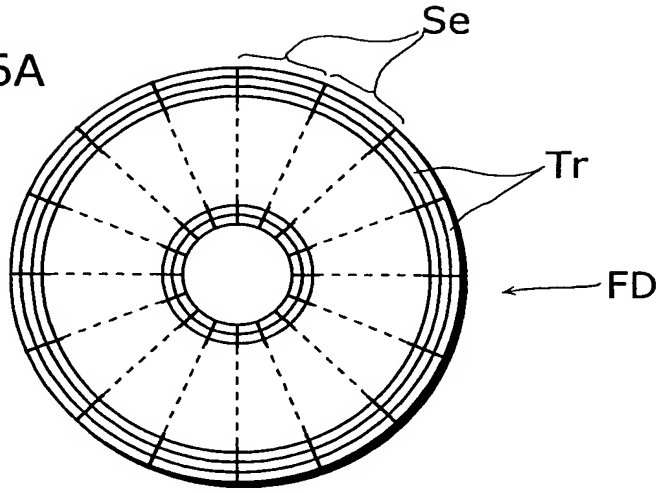


Fig. 16B

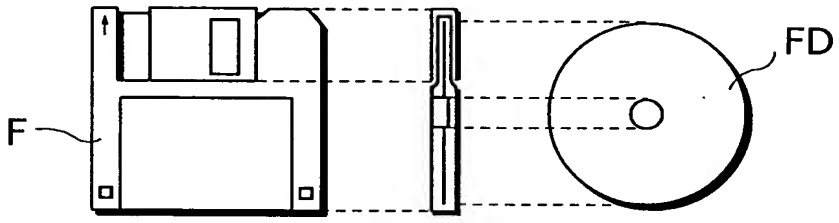
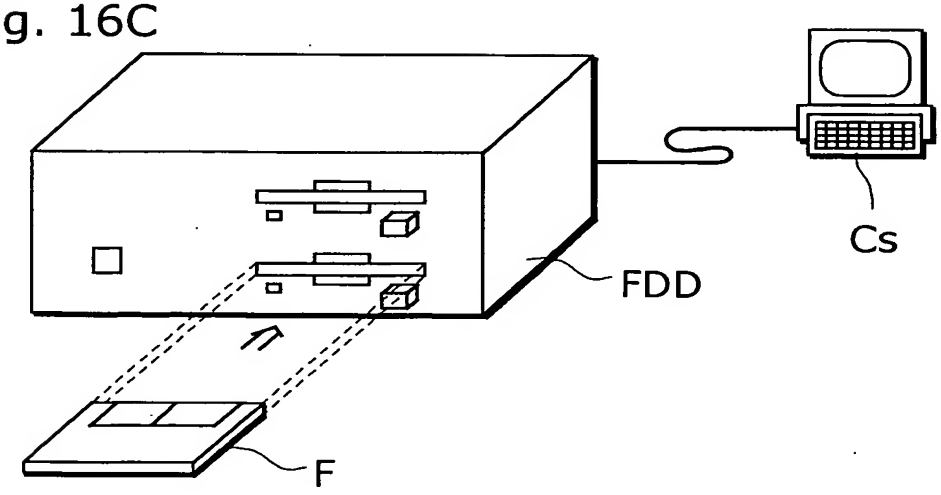


Fig. 16C



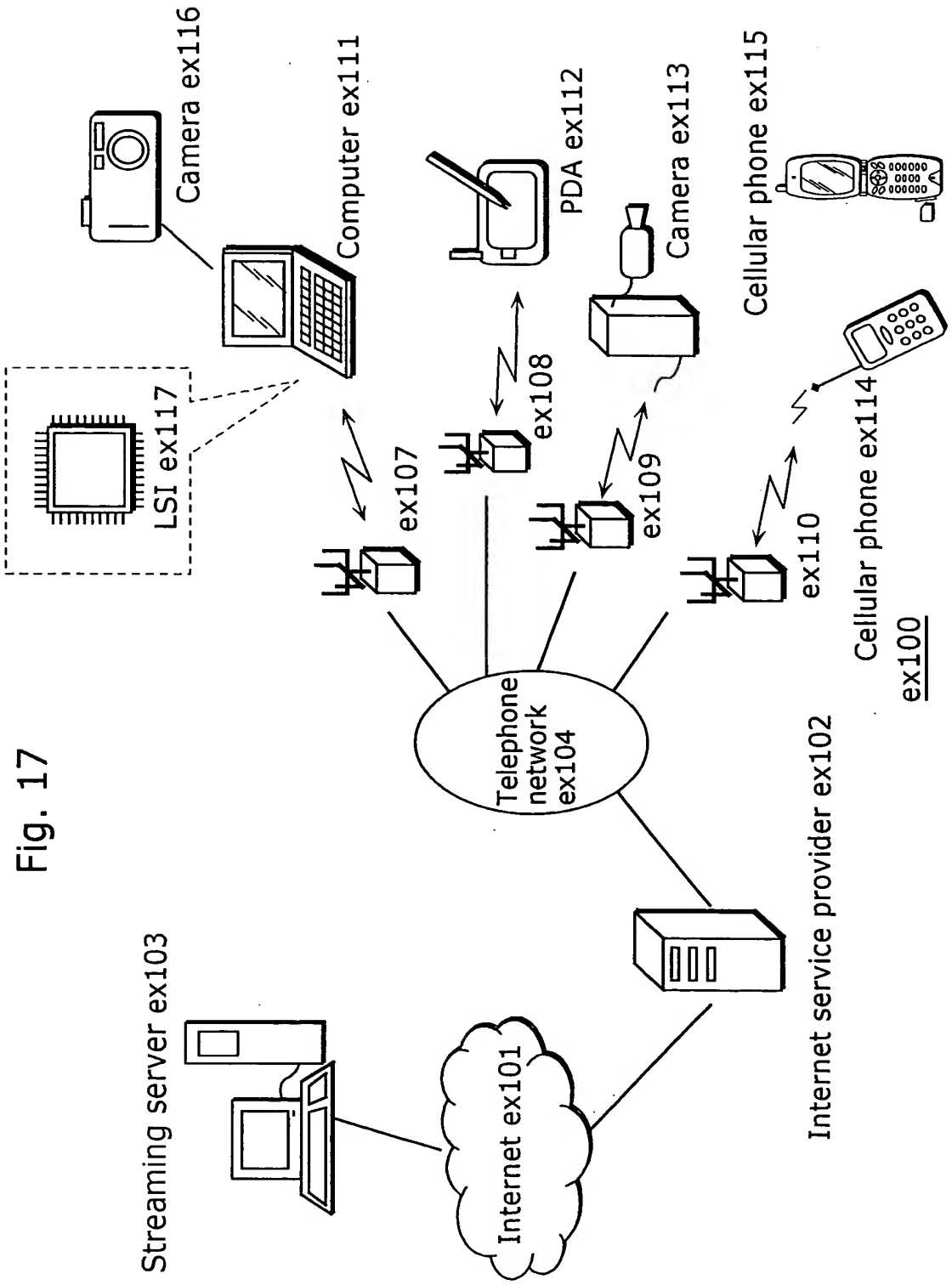

Camera ex116
Computer ex111
PDA ex112
Camera ex113
Cellular phone ex115
LSI ex117
ex107
ex108
ex109
ex110
Cellular phone ex114
Telephone network ex104
ex100
Streaming server ex103
Internet ex101
Internet service provider ex102

Fig. 17

Fig. 18

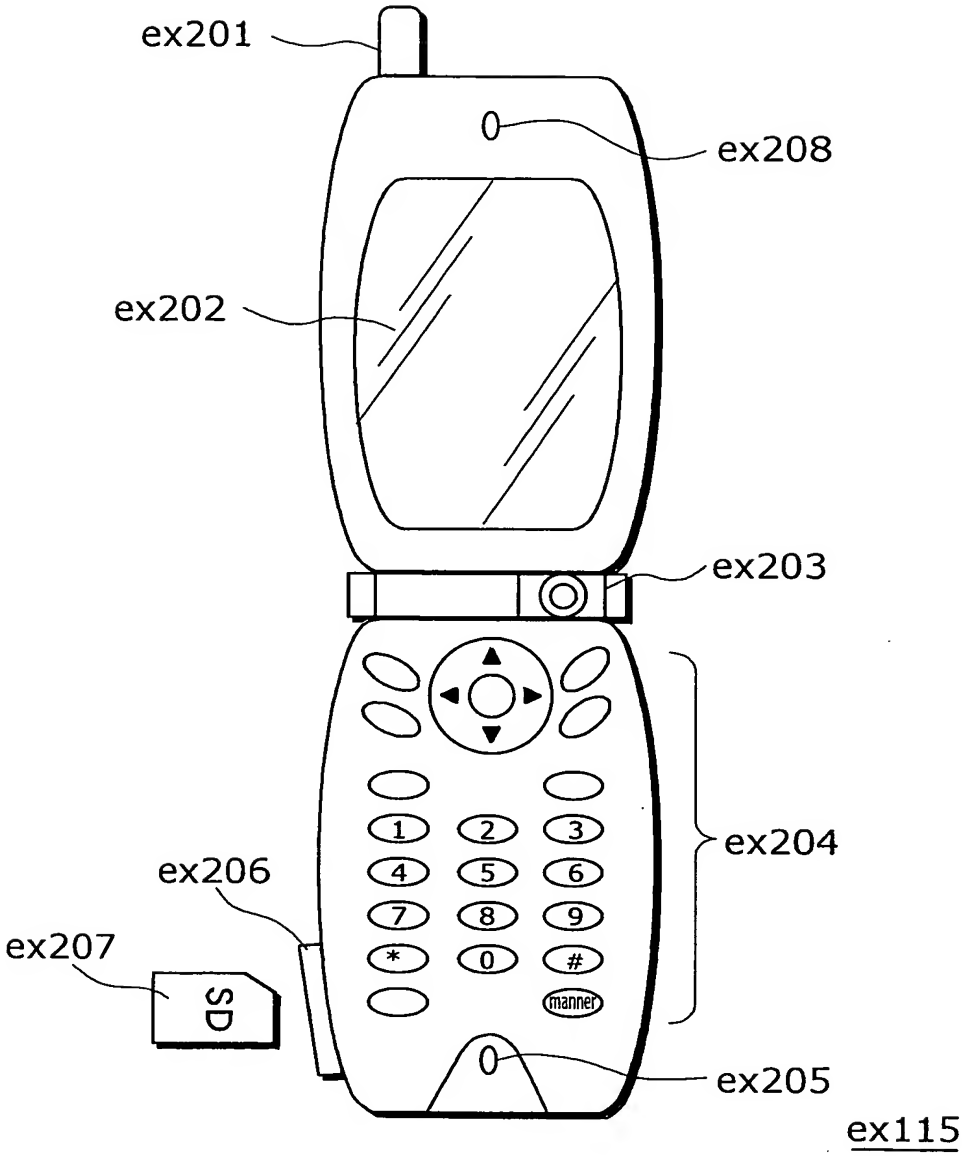

ex201
ex208
ex202
ex203
ex204
ex206
ex207
SD
ex205
ex115
1
2
3
4
5
6
7
8
9
*
0
#
manner

Fig. 19

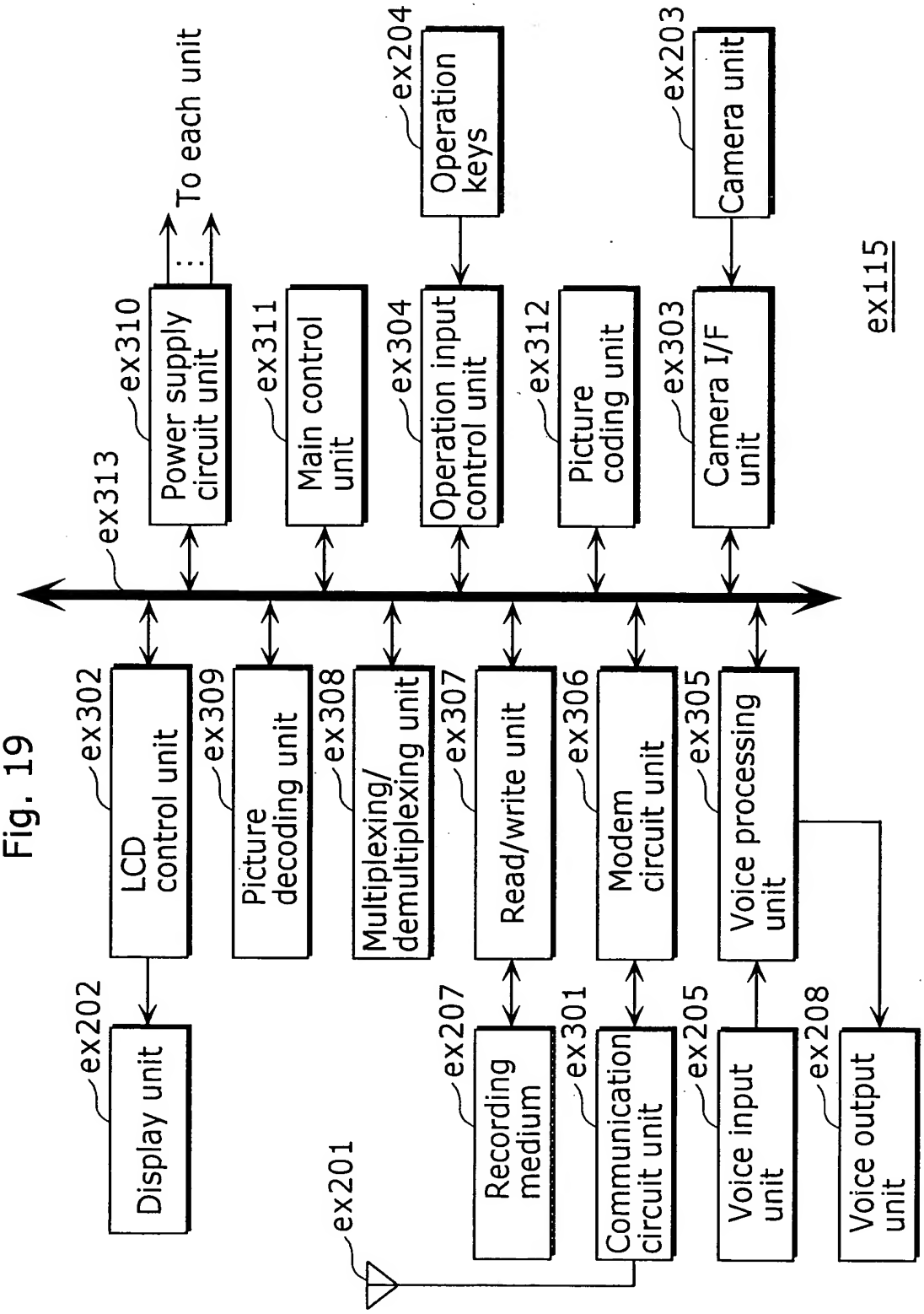
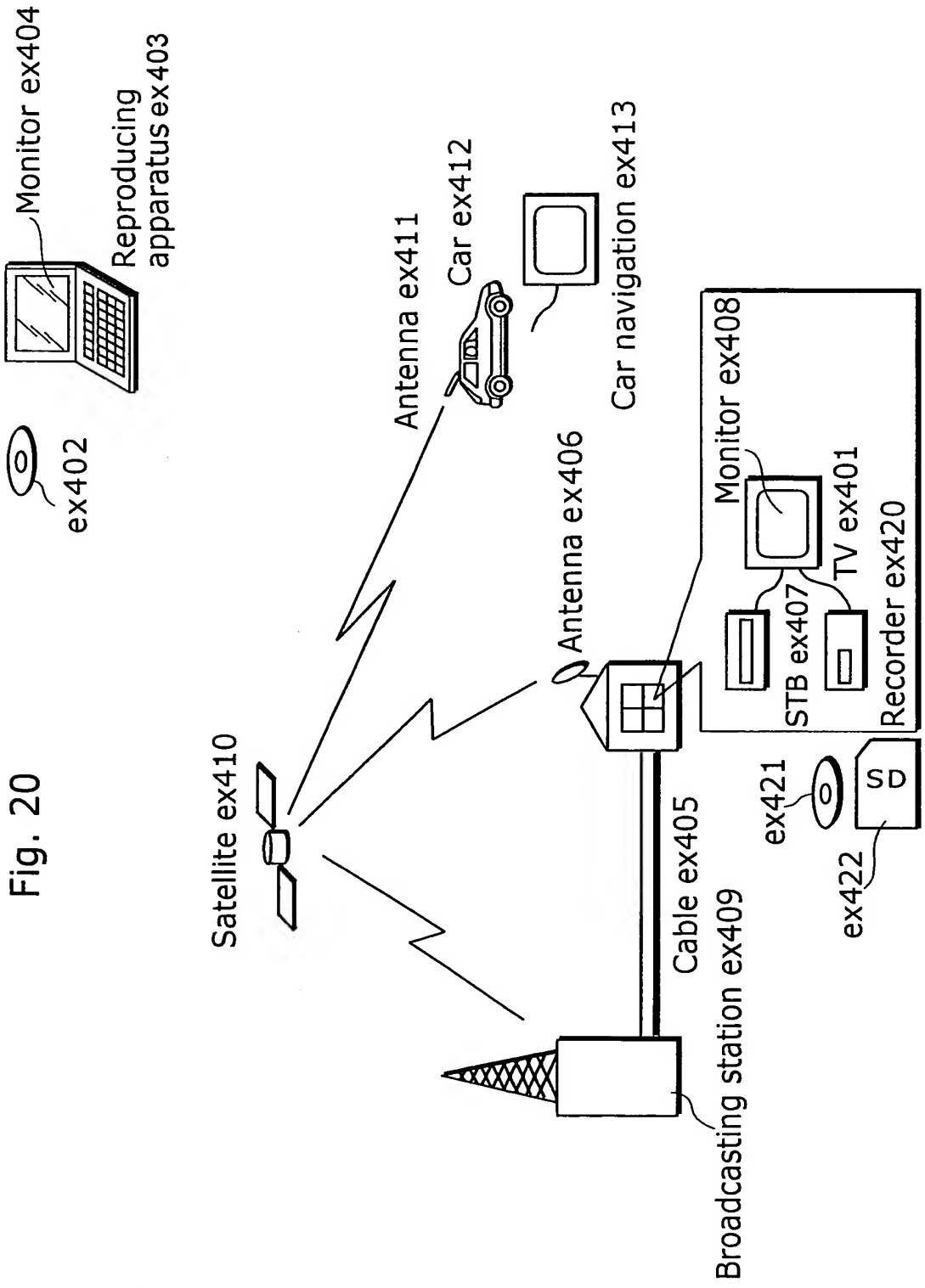

ex115
ex313
ex310
Power supply circuit unit
To each unit
ex311
Main control unit
ex304
Operation input control unit
ex204
Operation keys
ex312
Picture coding unit
ex303
Camera I/F unit
ex203
Camera unit
ex302
LCD control unit
ex309
Picture decoding unit
ex308
Multiplexing/ demultiplexing unit
ex307
Read/write unit
ex306
Modem circuit unit
ex305
Voice processing unit
ex202
Display unit
ex207
Recording medium
ex301
Communication circuit unit
ex205
Voice input unit
ex208
Voice output unit
ex201

Fig. 20


Monitor ex404
Reproducing apparatus ex403
ex402
Antenna ex411
Car ex412
Car navigation ex413
Antenna ex406
Monitor ex408
TV ex401
STB ex407
Recorder ex420
Satellite ex410
Cable ex405
ex421
SD
ex422
Broadcasting station ex409